	Application No.	Applicant(s)
Notice of Allowability	09/623,946	LAUMEN ET AL.
	Examiner	Art Unit	
	Mujtaba K. Chaudry	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *5/22/2006*.

2. ☒ The allowed claim(s) is/are *1,3,6,7,10 and 12*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some*   c) ☐ None   of the:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
    Paper No./Mail Date 10/27/2000

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413),
    Paper No./Mail Date 7/28/2006 .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

GUY LAMARRE
PRIMARY EXAMINER
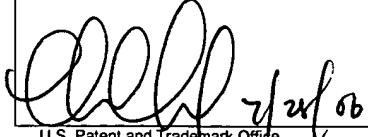
EXAMINER'S AMENDMENT

An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with ZBOROVSKY, ILYA on Friday, July 28, 2006.

Please amend the application as follows:

Please replace claim 1 with:

1. An apparatus for encoding data in accordance with a fire code $G(x) = P(x)(1+x^c)$, where $P(x)$ is an irreducible polynomial of the degree m, wherein the value for C can be freely set within predetermined limits and changed so that a code with variable redundancy can be obtained, the apparatus is formed so that it can implement a plurality of different fire codes, the different fire codes are selected for coding of input data in dependence on a control value, to produce the code with variable redundancy, and the variable redundancy produced by the fire code is used to dynamically adapt a data rate of a source data to an available band width of a respective data channel, when the data rate

of the source data varies and for the data channel only fixed rates for data rate are possible, by adding additional redundancy bits, the upper limit for C is predetermined by a maximal value and that the encoding apparatus has storage elements and modulo 2 adders whose number corresponds to a maximal number, and that switches are provided, by means of which the storage places and modulo 2 adders can connected together into an encoder according to the selected value C.

Please cancel claim 2.

Please replace claim 3 with:

3. A decoder for decoding data in accordance with a fire code $G(x) = P(x)(1 + x^c)$, where $P(x)$ is an irreducible polynomial of the degree m, wherein the value for C can be freely set within predetermined limits, wherein the length of a disk register can be set as a function of the value for C, and wherein a second disk register is provided, whose length can be set to a value B, where in all cases, B is less than m and where B indicates the maximal number of correctable bit errors.

Please cancel claim 4.

Please cancel claim 5.

Please replace claim 6 with:

6. A method for encoding data in accordance with a fire code G (x) = P (x) (1+x^c), where

P (x) is an irreducible polynomial of the degree m, wherein the value for C can be freely

set within predetermined limits and changed so that a code with variable redundancy can

be obtained, and the variable redundancy produced by the fire code is used to

dynamically adapt a data rate of a source data to an available band width of a respective

data channel so that with only fixed values for a data rate for the transmission channel

and variable data rate of a source, transmission reliability can be increased by selecting

coding and corresponding polynomials in dependence on different situation, wherein

values b and d for the error correction and detection properties of the incorporated

redundancy are adapted to the respective quality of the transmission value, and the values

b and d are adapted to a bit error rate of the transmission channel.

Please replace claim 7 with:

7. A method for decoding data in accordance with a fire code G (x) = P (x) (1 +x^c),

where P (x) is an irreducible polynomial of the degree m, wherein the value for C can be

freely set within predetermined limits and changed so that a code with variable

redundancy can be obtained, and the variable redundancy produced by the fire code is

used to dynamically adapt a data rate of a source data to an available band width of a

respective data channel so that with only fixed values for a data rate for the transmission

channel and variable data rate of a source, transmission reliability can be increased by

selecting codings and corresponding polynomials independence on different situation,

and wherein the values b and d for the error correction and detection properties of the incorporated redundancy can be freely set within predetermined limits and in accordance with d=c+1-b.

Please cancel claim 8.

Please cancel claim 9.

Please replace claim 10 with:

10. An apparatus as defined in claim 1, wherein values b and d for the error correction and detection properties of the incorporated redundancy are adapted to the respective quality of the transmission value, and the values b and d are adapted to a bit error rate of the transmission channel.

Please cancel claim 11.

Please replace claim 12 with:

12. A method as defined in claim 7, wherein values b and d for the error correction and detection properties of the incorporated redundancy are adapted to the respective quality of the transmission value, and the values b and d are adapted to a bit error rate of the transmission channel.

REASONS FOR ALLOWANCE

Claims 1, 3, 6, 7, 10 and 12 are allowed. The following is an Examiner's statement of reasons for allowance:

Independent claim 1 of the present application teaches an apparatus for encoding data in accordance with a fire code $G(x) = P(x)(1+x^c)$, where $P(x)$ is an irreducible polynomial of the degree m, wherein the value for C can be freely set within predetermined limits and changed so that a code with variable redundancy can be obtained, the apparatus is formed so that it can implement a plurality of different fire codes, the different fire codes are selected for coding of input data in dependence on a control value, to produce the code with variable redundancy, and the variable redundancy produced by the fire code is used to dynamically adapt a data rate of a source data to an available band width of a respective data channel, when the data rate of the source data varies and for the data channel only fixed rates for data rate are possible, by adding additional redundancy bits, the upper limit for C is predetermined by a maximal value and that the encoding apparatus has storage elements and modulo 2 adders whose number corresponds to a maximal number, and that switches are provided, by means of which the storage places and modulo 2 adders can connected together into an encoder according to the selected value C. The foregoing limitations are not found in the prior arts of record. Particularly, none of the prior arts of record teach or fairly suggest, "...to produce the code with variable redundancy, and the variable redundancy produced by the fire code is used to dynamically adapt a data rate of a source data to an available band width of a respective data channel, when the data rate of the source data varies and for the data channel only fixed rates for data rate are possible, by adding additional redundancy bits, the upper limit for C is predetermined by a maximal value and that

the encoding apparatus has storage elements and modulo 2 adders whose number corresponds to

a maximal number, and that switches are provided, by means of which the storage places and

modulo 2 adders can connected together into an encoder according to the selected value C".

Independent claims 3, 6 and 7 include similar limitations of independent claim 1 and

therefore are allowed for similar reasons.

Dependent claims 10 and 12 depend from allowable independent claims 1 and 7 and

inherently include limitations therein and therefore are allowed as well.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Mujtaba K. Chaudry whose telephone number is 571-272-3817.

The examiner can normally be reached on Mon-Thur 9-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Albert DeCady can be reached on 571-272-3819. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).
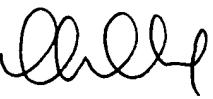
Mujtaba Chaudry
Art Unit 2133
July 28, 2006

GUY LAMARRE
PRIMARY EXAMINER